

THAT WHICH IS CLAIMED IS:

1. A raw material of swine solids suitable for processing into an organic fertilizer, soil amendment or soilless media, prepared by a process consisting of the steps of:

5 mixing a dissolved activated polymer with swine waste water to produce a flocculated solid;

screening the swine waste water to remove the flocculated solids from the swine waste water;

10 separating the flocculated solid from the liquid portion and passing the solid portion through a belt filter press to reduce the moisture content to a preselected level,

whereby the flocculated solid is processed to produce an organic fertilizer, soil amendment or soilless media and the treated liquid is substantially free from solids, odor, and nutrients.

15 2. The raw material of swine solids according to claim 1 wherein the step of screening further includes the steps of passing the flocculated solid through a rotating screen filter to remove a first group of flocculated solids; and

passing the flocculated solids through a vibrating screen and a roller press to further dewater the flocculated solids.

20 3. The raw material of swine solids according to claim 2 wherein the flocculated solids have a moisture content of between about 40% to about 70%.

4. The raw material according to claim 3 further including the step of composting the flocculated solids from the composting methods selected from the group consisting of vermicomposting, anaerobic digestion and aerobic composting.

5. A raw material of swine solids from swine waste water of the type including a solid portion and a liquid portion, characterized by its uniformity and which substantially concentrates the nutrients in the solid portion and removes them from the liquid portion, prepared by a process consisting of:

separating the solid portion from the liquid portion,

composting the separated solid portion,

whereby the resulting composted solid portion may be mixed with other carbon sources and used to produce a fertilizer, soil amendment or soilless media and the treated liquid is substantially free from solids, odor and nutrients.

6. A method of producing a soil amendment characterized by improved nutrient bioavailability comprising the steps of:

blending swine solids with a carbon source to form a swine solid mix;

composting the swine solid mix for about 4 to 6 weeks;

curing the swine solid mix for about 4 to 6 weeks;

whereby a stabilized soil amendment is formed that is substantially free of pathogens.

7. The method according to claim 6 wherein the carbon source is selected from the group consisting of leaves, lawn waste, tobacco processing trash, cotton gin trash, hay, softwood bark, hardwood bark, sawdust or vegetable waste.

5 8. The method according to claim 7 wherein the carbon-nitrogen ratio is about 20-30 and the moisture content is about 60%.

10 9. The method according to claim 7 wherein the step of composting further includes the step of aeration and adding water to facilitate composting.

10 10. The method according to claim 7 further including the step of adding up to 2.0% by volume of clay;
whereby phosphorus is tied up and iron availability is increased.

15 11. A soilless media having improved nutrient bioavailability and comprising:
a mixture of composted hog waste solids and a composted carbon source
having a moisture content of between about 40% and about 70%.

20 12. A soilless media according to claim 11 wherein the carbon source is selected from the group consisting of leaves, lawn waste, tobacco processing trash, cotton gin trash, hay, soft wood bark, hardwood bark, sawdust and vegetable waste.

13. A soilless media according to claim 11 further comprising:

40% to 60% by volume composted swine solids; and

40% to 60% by volume Coir fiber.

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14. A soilless media according to claim 10 further comprising:

10% to 18% by volume unwashed coarse sand; and

75% to 90% by volume of a composted mixture of 1 part swine solids to 3

parts pine bark.

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15. A soilless media according to claim 10 further comprising:

50% to 70% by volume of a composted mixture of one part swine solid and 1

part pine bark;

20% to 40% by volume of Perlite;

5% to 15% by volume of sand.

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16. A soilless media according to claim 10 further comprising:

50% to 70% by volume of a composted mixture of two parts swine solids and

one part pine bark;

10% to 30% by volume Coir fiber; and

10% to 30% by volume of Vermiculite.

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17. A soilless media prepared by a process consisting of:
composting a mixture of swine solids and pine bark to produce a composted
mixture;
mixing the composted mixture with Coir fiber to produce a fibrous mixture;
and
mixing sand with the fibrous mixture;
whereby a stabilized soilless media is formed that is substantially free of
pathogens and has enhanced nutrient bioavailability.

18. The soilless media according to claim 17 further including the step of:
adding clay to the sand and fibrous mixture;
whereby phosphorus is tied up and iron is made available for plant growth.

19. A soilless media prepared by the process consisting of:
composting a mixture of about 2 parts swine solids to about 1 part pine bark
to produce a composted mixture;
adding approximately one third as much Coir fiber to the composted mixture
to produce a fibrous mixture;
adding approximately one third as much Vermiculite to the fibrous mixture;
whereby a stabilized soilless media is formed that is substantially free of
pathogens and has enhanced nutrient bioavailability.

20. The soilless media prepared by the process according to claim 11 further including the step of adding clay to the soilless media.

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